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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,291

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Mark Eric Prentice

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7590

03/17/2009

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EXAMINER

BARAN, MARY C

ART UNIT

PAPER NUMBER

2857

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,291	<b>Applicant(s)</b> PRENTICE ET AL.	
	<b>Examiner</b> MARY C. BARAN	<b>Art Unit</b> 2857	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 39,40,43,45 and 79-86 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39,40,43,45 and 79-86 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/30/2009</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 January 2009 has been entered.

### ***Response to Amendment***

2. The action is responsive to the Amendment filed on 30 January 2009. Claims 39, 40, 43, 45, 79, 80 and 83-86 are pending. Claim 39 is amended. Claims 1-38, 41, 42, 44 and 46-78 are cancelled.

### ***Information Disclosure Statement***

3. The information disclosure statements filed 7 March 2005, 1 May 2006 and 30 January 2009 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39-40, 45, 79, 80 and 83-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U.S. Patent No. 6,064,942) (hereinafter Johnson) in view of Edwards (U.S. PG-Pub No. US 2002/0191282).

Referring to claim 39, Johnson teaches a mobile handheld instrument (see Johnson, column 12 line 1) configured to capture an image of a target (see Johnson, column 4 lines 53-59) and spatial data for determination of a position of the target (see Johnson, Abstract), said instrument including:

a plurality of measuring devices, the measuring devices including a camera (see Johnson, column 11 lines 60-65) and a plurality of spatial sensors configured to capture spatial data for determination of the position of the target (see Johnson, column 2 lines 21-29), the spatial sensors including;

a compass having one or more magnetic field sensors and being aligned with the camera for determination of a bearing of the mobile instrument by measurement of the Earth's magnetic field (see Johnson, column 2 line 23);

a laser distance meter for determining a distance from the mobile instrument to the target, the laser distance meter being aligned with the camera and compass such

Art Unit: 2857

that it is directed towards the target when the camera is aligned with the target (see Johnson, column 2 lines 21-22);

a positioning system for determining a position of the mobile instrument (see Johnson, column 2 line 25);

an electronic display screen configured to display a view obtained using the camera to superimpose a marker indicative of a datum position on the displayed view to enable a user to align the mobile instrument with the target (see Johnson, column 4 lines 53-59); and

memory configured to store data obtained from the measuring device (see Johnson, column 4 lines 43-50 and lines 53-50);

wherein the mobile instrument is configured to obtain an image from the camera and data from each spatial sensor and store the image and data in the memory, associating the data with the image (see Johnson, column 11 lines 60-65 and column 4 lines 53-59), but does not teach a first power switch operable to control power to the compass; a second power switch operable to control power to one or more other measuring devices; or a power controller capable of asynchronously operating the first and second power switches so as to asynchronously obtain data from the compass and one or more other spatial sensors.

Edwards teaches a first power switch operable to control power to the compass (see Edwards, page 3 [0035], [0040] and Figure 1); a second power switch operable to control power to one or more other measuring devices (see Edwards, page 3 [0039] lines 2-5; or a power controller capable of asynchronously operating the first and

Art Unit: 2857

second power switches so as to asynchronously obtain data from the compass and one or more other spatial sensors (see Edwards, page 3 [0035] and [0040]-[0041]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Johnson to include the teachings of Edwards because having asynchronous switching would have allowed the skilled artisan to select between the multiple sensors to collect or display any specific data of interest.

Referring to claim 40, Johnson does not teach that the power controller is at least partially integrated with one of the measuring devices.

Edwards teaches that the power controller is at least partially integrated with one of the measuring devices (see Edwards, page 3 [0037]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Johnson to include the teachings of Edwards because integrating the power controller with one of the measuring devices would have allowed the skilled artisan to provide an on site power source.

Referring to claim 45, Johnson teaches that the one or more spatial sensors include one or more of: a distance meter (see Johnson, column 2 line 22 "laser range finder"), and a global positioning system (see Johnson, column 4 lines 35-37).

Referring to claim 79, Johnson does not teach that the power controller includes a processor, and a device for controlling the supply of power to the processor.

Edwards teaches that the power controller includes a processor, and a device for controlling the supply of power to the processor (see Edwards, page 3 [0037] and Figure 3).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Johnson to include the teachings of Edwards because regulating the power supply would have allowed the skilled artisan to conserve power and/or battery life.

Referring to claim 80, Johnson does not teach that the power controller includes a processor, and a device for controlling the supply of power to the processor.

Edwards teaches that the power controller includes a processor, and a device for controlling the supply of power to the processor (see Edwards, page 3 [0037] and Figure 3).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Johnson to include the teachings of Edwards because regulating the power supply would have allowed the skilled artisan to conserve power and/or battery life.

Referring to claim 83, Johnson does not teach a port able to be connected to an external sensor from which the mobile instrument may obtain further information; and a third power switch to control power to the port, the power controller being capable of asynchronously controlling the first, second and third power switches.

Edwards teaches a port able to be connected to an external sensor from which the mobile instrument may obtain further information; and a third power switch to control power to the port, the power controller being capable of asynchronously controlling the first, second and third power switches (see Edwards, page 3 [0035] and page 4 [0054]-[0055]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Johnson to include the teachings of Edwards because having an external system would have allowed the skilled artisan to run tests on the device using a baseline or collect external data.

Referring to claim 84, Johnson teaches that the measuring devices include: a distance meter (see Johnson, column 2 line 22 “laser range finder”), and a global positioning system (see Johnson, column 4 lines 35-37) and the mobile instrument further includes a display screen (see Johnson, column 4 line 47).

Referring to claim 85, Johnson does not teach that the power controller is a central processing platform which also receives data from the measuring devices.

Edwards teaches that the power controller is a central processing platform which also receives data from the measuring devices (see Edwards, page 3 [0037]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Johnson to include the teachings of Edwards because allowing the power controller to receive data from the measuring devices would have allowed the



Art Unit: 2857

skilled artisan to determine if data is being collected and if not supply a shut off signal to the measurement device to conserve power.

Referring to claim 86, Johnson does not teach that the controller is arranged to control the power switches to provide power to a measuring device when it is required to provide data and not to provide power to the measuring device at other times.

Edwards teaches that the controller is arranged to control the power switches to provide power to a measuring device when it is required to provide data and not to provide power to the measuring device at other times (see Edwards, page 3 [0039] lines 2-4).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Johnson to include the teachings of Edwards because providing power when required and ceasing power transfer when power is not required would have allowed the skilled artisan to conserve power.

5. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U.S. Patent No. 6,064,942) (hereinafter Johnson) in view of Edwards (U.S. PG-Pub No. US 2002/0191282) and in further view of McGivern (U.S. Patent No. 6,952,881).

Referring to claim 43, the combination of Johnson and Edwards teach all the features of the claimed invention except that the power controller includes one or more

Art Unit: 2857

power control lines for controlling the power, a camera data line coupled to the camera, and one or more sensor data lines each coupled to a respective spatial sensor.

McGivern teaches that the power controller includes one or more power control lines for controlling the power switches (see McGivern, column 7 lines 56-66), a camera data line coupled to the camera (see McGivern, column 9 lines 50-57), and one or more sensor data lines each coupled to a respective spatial sensor (see McGivern, column 3 lines 46-51).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the combination of Johnson and Edwards to include the teachings of McGivern because controlling the data and power lines would have allowed the skilled artisan to gather specified data as well as conserve power.

6. Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U.S. Patent No. 6,064,942) (hereinafter Johnson) in view of Edwards (U.S. PG-Pub No. US 2002/0191282) and in further view of Miyajima (U.S. Patent No. 5,539,477).

Referring to claim 81, Johnson and Edwards teach all the features of the claimed invention except that the device for controlling the supply of power to the processor is a monostable device.

Miyajima teaches that the device for controlling the supply of power to the processor is a monostable device (see Miyajima, Abstract).

It would have been obvious at the time the invention was made to modify the combination of Johnson and Edwards to include the teachings of Miyajim because using

Art Unit: 2857

a monostable device to control the power supply would have allowed the skilled artisan to keep the power on or off for a fixed period of time.

7. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U.S. Patent No. 6,064,942) (hereinafter Johnson) in view of Edwards (U.S. PG-Pub No. US 2002/0191282) and in further view of Kashani (U.S. PG Pub No. US 2002/0032875).

Referring to claim 82, Johnson and Edwards teach all the features of the claimed invention except that the power controller includes two or more handshaking lines, each coupled to a respective power switch.

Kashani teaches that the power controller includes two or more handshaking lines, each coupled to a respective power switch (see Kashani, page 12 [0188]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the combination of Johnson and Edwards to include the teachings of Kashani because including a handshaking line would have allowed the skilled artisan to provide an acknowledgment of the received data (see Kashani, page 12 [0188]).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 39, 40, 43, 45 and 79-86 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARY C. BARAN whose telephone number is (571)272-2211. The examiner can normally be reached on Monday to Friday 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mary Catherine Baran/  
12 March 2009